Monday, 1/8/2007 10:40:02 AM

User:

Kim Johnston

#### **Process Sheet**

Customer

: CU-DAR001 Dart Helicopters Services

Job Number

: 30125

**Estimate Number** P.O. Number

: 12544

This Issue Prsht Rev. : N/A

: 1/8/2007

: MA

: 28854

S.O. No. : 1/A

: SMALL /MED FAB Type

: DRIVESHAFT TUNNEL MOD KIT **Drawing Name** 

Part Number

: D412705015

**Drawing Number** 

: IIN D412-705 PG 14

**Project Number Drawing Revision** 

: N/A : B

Material

: NA : 1/15/2007 **Due Date** 

Qty:

4 Um: Each

Written By

First Issue

**Previous Run** 

Checked & Approved By

Comment

: Est Rev:B Removed Manufacturing 06-10-03 JLM

**Additional Product** 

Job Number:



Seq. #:

**Machine Or Operation:** 

Description:

DOCUMENT CONTROL

07.01.15 KJ.

1.0 DC

Comment: Photocopy bluefile & type labels per PPP D412-705-015

CHG00

07,05,03

2.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

3.0

D3256041

Access Panel Assembly

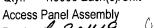


Comment: Qty.:

1.0000 Each(s)/Unit

Total:

4.0000 Each(s)



4.0

AN3C3A



Comment: Qty.:



22.0000 Each(s)/Unit

Total: 88,0000 Each(s)

Bolt

AN3C4A

BOLT



Total:

**BOLT** 

Batch:

Comment: Qty.: 3.0000 Each(s)/Unit

12.0000 Each(s)

Page 1

Form: rprocess

# **Dart Aerospace Ltd**

| W/O: |      | WORK ORDER CHANGES |    |          |     |                               |                          |  |  |  |  |
|------|------|--------------------|----|----------|-----|-------------------------------|--------------------------|--|--|--|--|
| DATE | STEP | PROCEDURE CHANGE   | Ву | Date     | Qty | Approval Chief Eng / Prod Mgr | Approval<br>QC Inspector |  |  |  |  |
|      |      |                    |    |          |     |                               |                          |  |  |  |  |
|      |      |                    |    |          |     |                               |                          |  |  |  |  |
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|      |      |                    |    |          |     |                               |                          |  |  |  |  |
|      | 1    |                    |    | <i>a</i> |     | i                             | 1                        |  |  |  |  |

| Part No: | PAR #: | Fault Category: | NCR: Yes No DQA: | Date: 0/05/0 |
|----------|--------|-----------------|------------------|--------------|
|          |        |                 | QA: N/C Closed:  | Date:        |

| WORK ORDER NON-CONFORMANCE (NCR) |                          |  |  |  |  |  |  |  |
|----------------------------------|--------------------------|--|--|--|--|--|--|--|
| n Approval                       | Annroyal                 |  |  |  |  |  |  |  |
| n Approval<br>Chief Eng          | Approval<br>QC Inspector |  |  |  |  |  |  |  |
|                                  |                          |  |  |  |  |  |  |  |
|                                  |                          |  |  |  |  |  |  |  |
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|                                  | •                        |  |  |  |  |  |  |  |
|                                  |                          |  |  |  |  |  |  |  |

NOTE: Date & initial all entries

Date: Monday, 1/8/2007 10:40:02 AM Kim Johnston User: **Process Sheet** Drawing Name: DRIVESHAFT TUNNEL MOD KIT Customer: CU-DAR001 Dart Helicopters Services **Part Number:** D412705015 Job Number: 30125 Job Number: Description: Seq. #: Machine Or Operation: Washer MS932109 6.0 Comment: Qty.: 100.0000 Each(s) 25.0000 Each(s)/Unit Total: Washer Batch: MS20427M33 Rivet 7.0 176.0000 Each(s) Comment: Qty.: 44.0000 Each(s)/Unit Total: Rivet Batch: 8.0 MS21060L3F 88.0000 Each(s) Comment: Qty.: 22.0000 Each(s)/Unit Total: **Nut Plate** Batch: 9.0 QC4 Cd07/05/03 (4 Comment: INSPECT 100% KITS FOR COMPLETENESS 10.0 PACKAGING Comment: PACKAGING RESOURCE #1 Identify and pack for shipping as per PPP D412-705-015 Location:\_ PPP Rev: 11.0 QC21 Comment: FINAL INSPECTION/W/O RELEASE Job Completion

## **Dart Aerospace Ltd**

| W/O:     |      | WORK ORDER CHAN      | RCHANGES |       |     |                               |                          |  |  |  |
|----------|------|----------------------|----------|-------|-----|-------------------------------|--------------------------|--|--|--|
| DATE     | STEP | PROCEDURE CHANGE     | Ву       | Date  | Qty | Approval Chief Eng / Prod Mgr | Approval<br>QC Inspector |  |  |  |
|          |      |                      |          |       |     |                               |                          |  |  |  |
|          |      |                      |          |       |     |                               |                          |  |  |  |
|          |      |                      |          |       |     |                               |                          |  |  |  |
|          |      |                      |          |       |     |                               |                          |  |  |  |
| Dort No. | _    | DAD# Foult Cotomonia | NOD. V.  | N. 50 | . 1 | D-4                           |                          |  |  |  |

| Part No: | _ PAR #: | Fault Category: | NCR: Yes No | DQA:    | Date: |
|----------|----------|-----------------|-------------|---------|-------|
|          |          |                 | QA: N/C     | Closed: | Date: |

| NCR:      |  |                   | WORK ORD             | ER NON-CONFORMAN            | CE (NCR) |              |           |                          |
|-----------|--|-------------------|----------------------|-----------------------------|----------|--------------|-----------|--------------------------|
| DATE STEP |  | Description of NC |                      | Corrective Action Section B |          | Verification | Approval  | Approval                 |
|           |  | Section A         | Initial<br>Chief Eng |                             |          | Section C    | Chief Eng | Approval<br>QC Inspector |
|           |  |                   |                      |                             |          |              |           |                          |
|           |  |                   |                      |                             |          |              |           |                          |
|           |  |                   |                      |                             |          |              |           |                          |
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|           |  |                   |                      |                             |          |              |           |                          |
|           |  |                   |                      |                             |          |              |           | *                        |

NOTE: Date & initial all entries

### 4.0 WEIGHT AND BALANCE

|                                                                       |                   | LAT             | ERAL                  | LONGITUDINAL     |                         |  |
|-----------------------------------------------------------------------|-------------------|-----------------|-----------------------|------------------|-------------------------|--|
| Installation                                                          | Weight            | Arm             | Moment                | Arm              | Moment                  |  |
| D412-705-011 Twin Pak E-Z                                             | 6.3 lb            | 0.0 in          | 0.0 in lb             | 189 in           | 1190.7 in lb            |  |
| Access Kits (net)                                                     | 2.86 kg           | 0.0 m           | 0.0 m kg              | 4.80 m           | 13.73 m kg              |  |
| D412-705-013 Intake Plenum                                            | 2.5 lb            | 0.0 in          | 0.0 in lb             | 175 in           | 437.5 in lb             |  |
| Access Panel Kit                                                      | 1.16 kg           | 0.0 m           | 0.0 m kg              | 4.44 m           | 5.15 m kg               |  |
| D412-705-015 Drive Shaft Tunnel Modification Kit                      | 1.1 lb            | 0.0 in          | 0.0 in lb             | 189 in           | 208.2 in lb             |  |
|                                                                       | 0.50 kg           | 0.0 m           | 0.0 m kg              | 4.81 m           | 2.41 m kg               |  |
| D412-705-017 N1 Gearbox                                               | 1.0 lb            | 0.0 in          | 0.0 in lb             | 166 in           | 166.0 in lb             |  |
| Access Panel Kit (net)                                                | 0.47 kg           | 0.0 m           | 0.0 m kg              | 4.22 m           | 1.98 m kg               |  |
| D412-705-019 C-Box Oil Cooler                                         | 1.2 lb            | 0.0 in          | 0.0 in lb             | 238 in           | 278.5 in lb             |  |
| Line Support Access Kit (net)                                         | 0.53 kg           | 0.0 m           | 0.0 m kg              | 6.05 m           | 3.21 m kg               |  |
| D412-705-021 Oil Pressure                                             | 0.3 lb            | -6.0 in         | -1.8 in lb            | 166 in           | 49.8 in lb              |  |
| Transmitter Access Kit (net)                                          | 0.14 kg           | -0.15 m         | -0.02 m kg            | 4.22 m           | 0.60 m kg               |  |
| D412-705-023 Oil Cooler<br>Support Removable Lower<br>Panel Kit (net) | 0.2 lb<br>0.09 kg | 0.0 in<br>0.0 m | 0.0 in lb<br>0.0 m kg | 238 in<br>6.05 m | 47.6 in lb<br>0.55 m kg |  |

#### 5.0 PARTS LIST

| Qty  | Qty                                              | Qty  | Qty  | Qty  | Qty  | Qty  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------|--------------------------------------------------|------|------|------|------|------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -011 | -013                                             | -015 | -017 | -019 | -021 | -023 | Part Number - | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Х    | <u> </u>                                         |      |      |      |      |      | D412-705-011  | TWIN PAK E-Z ACCESS KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1    | Х                                                |      |      |      |      |      | D412-705-013  | INTAKE PLENUM ACCESS PANEL KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1    |                                                  | X    |      |      |      | 1    | D412-705-015  | DRIVESHAFT TUNNEL MODIFICATION KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1    | <del>                                     </del> |      | Х    |      |      |      | D412-705-017  | N1 GEARBOX ACCESS PANEL KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1    | <u> </u>                                         |      |      | х    |      |      | D412-705-019  | C-BOX OIL COOLER LINE SUPPORT ACCESS KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1    |                                                  |      |      |      | Х    |      | D412-705-021  | OIL PRESSURE TRANSMITTER ACCESS KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1    |                                                  |      |      |      |      | X    | D412-705-023  | OIL COOLER SUPPORT REMOVABLE LOWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| •    |                                                  |      |      |      |      |      |               | PANEL KIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ***  |                                                  |      |      |      |      |      | ,             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|      | 1                                                |      |      |      |      |      | D3245-041     | ACCESS PANEL ASSEMBLY, LH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      | 1                                                |      |      |      |      |      | D3245-042     | ACCESS PANEL ASSEMBLY, RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      | 2                                                |      |      |      |      |      | D3245-043     | DOOR ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|      |                                                  |      | 1    |      |      |      | D3255-041     | ACCESS PANEL ASSEMBLY, LH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      |                                                  | ·    | 1    |      |      |      | D3255-042     | ACCESS PANEL ASSEMBLY, RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| -    |                                                  | 1    |      |      |      |      | D3256-041     | ACCESS PANEL ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|      |                                                  |      |      | 1    |      |      | D3259-041     | ACCESS PANEL ASSEMBLY, LH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      |                                                  |      |      | · 1  |      |      | D3259-042     | ACCESS PANEL ASSEMBLY, RH ACCESS PANEL ASSEMBLY SHOP COPY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      |                                                  |      |      |      | 1    |      | D3307-041     | ACCESS PANEL ASSEMBLY SHOTO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|      |                                                  |      |      |      |      |      |               | RETURN TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      |                                                  |      |      |      |      | 30   | AN3-3A        | BOLT ENGINEERING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| -    |                                                  | 22   | 30   |      | 6    |      | AN3C-3A       | BOLT ENGINEERING OF THE CONTROLLED COLUMN TROUBLED COLUMN TROUBLE COL |
|      |                                                  | 3    |      |      |      |      | AN3C-4A       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|      |                                                  |      |      |      |      | 30   | AN960JD10     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|      |                                                  | 44   | 36   |      | 12   |      | MS20427M3-3   | RIVET WORK ORDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|      |                                                  |      |      |      |      | 2    | MS21051-L3K   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|      |                                                  | 22   | 18   |      | 6    |      | MS21060-L3K   | NUT PLATE NO. 3012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|      |                                                  |      |      |      |      | 18   | MS21069-L3K   | NUT PLATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|      |                                                  | 25   | 30   |      | 6    |      | MS9321-09     | WASHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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Revision: **B** 

Date: 04.09.27